

ENVE 204 ENGINEERING HYDRAULICS COMPUTER PROJECT

RESISTANCE COEFFICIENT

Deadline of the Project: 03/16/2018 (Friday)

Program will be written in MS Excel or in Visual Basics and will calculate the resistance coefficient (R) for Darcy-Weisbach, Hazen Williams and Manning' s equation:

a) Darcy Weisbach

Inputs : Length, diameter, roughness height, flow rate

Outputs : friction factor, resistance coefficient, head loss

Note: Friction factor should be calculated by using explicit equations

b) Hazen Williams Equation

Inputs : Length, diameter, Hazen Williams coefficient, flow rate

Outputs : resistance coefficient, head loss

c) Manning's Equation

Inputs : Length, diameter, Hazen Williams coefficient, flow rate

Outputs : resistance coefficient, head loss

Program should ask the units of the problem (SI or British Units) and should make necessary conversion in the calculations and formulas.

You will submit the program by e-mail to the following address

hydraulicsmarmara2018@gmail.com

Name of the file should be in following form;

“ ENVE 204 COMP. PROJECT (STUDENT NAME & NO)”